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THE

PHYTOLOGIST.

A BOTANICAL JOURNAL.

Ὡς ἐμεγαλύνθη τὰ ἔργα σου, Κύριε!—πάντα ἐν σοφίᾳ ἐποίησας.

ΨΑΛΜ. ρ/. 24.

Benedicite universa germinantia in terra Domino; laudate et superexaltate Eum in saecula.—*Hymn. iii Pueror.* v. 78.

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THE PHYTOLOGIST.

1861.

ANNUAL ADDRESS.

The great Christian festival which has lately been celebrated, the Mistletoe and the Holly, the latter of which in some places is called *Christmas*, remind us of the approaching new year, and imposes on the Editor the not ungrateful labour of congratulating the contributors and readers of the 'Phytologist' on the completion of the Fourth Volume of this periodical. His thanks and the thanks of the Publisher are very respectfully tendered to the subscribers, purchasers, and readers of the magazine.

The Editor's efforts to extend the usefulness of the work have been ably supported during the past year by a steady increase in the number and value of the contributions. The readers are referred to the Contents and to the List of Contributors for proof of what is here asserted; and the multifarious and useful papers published during the past twelve months are ample testimony that the labours of the proprietors in procuring efficient support have been successful. For this voluntary, gratuitous, and efficient assistance, of which the last or fourth volume is the result, we beg to offer our sincere and grateful acknowledgments. As one of the results of an increased number of correspondents, we confidently expect a corresponding increase in the variety and value of the forthcoming productions, and a wider extension of our circulation.

We have been reminded in a friendly way, by one of the earliest and firmest patrons of this Series, that we are supported by but few of the original contributors, viz. by few of those who wrote in and for the former Series, when it was in a flourishing condition.

BRITISH MUSEUM

It should not be forgotten, while considering the causes of the disappearance of well-known names from our list, that a period of nearly twenty years which have elapsed since the establishment of this journal, produces gaps in all ranks, those of botanists not excepted. Deaths, removals, and the infirmities that follow increasing years, have during the last twenty years materially diminished the number of those who take an interest in local botany and in the collecting and recording of facts relative to the British plants. While we record this with pensive feelings, and live continually in ominous expectancy of the inroads of our last enemy, we announce, with much satisfaction, to all our readers, who will be gratified by this information, that there are bands of hopeful juniors rising up and receiving a course of training from the veterans of science, and are preparing to take our place and fulfil our functions.

Our hope is not lost with the loss of a couple of the earliest and most diffusive writers in the Old Series,—who are alive, and long may they live, if long life will bring late repentance! We know no other wilful deserters but these, who are like the shepherds celebrated in the famous eclogue,—

"Arcades ambo;
Et pugnare pares, et respondere parati."*

If few of the original subscribers continue to support our undertaking, few have abandoned us; and we have the goodwill of the remainder, if not their active co-operation.

It is known to almost all, if not all, our readers, that at the commencement of a new year, and also of a new volume, an abridgment of what has been accomplished in British botany during the past twelve months is expected in our annual exposition; and it will be our care to make this synopsis as comprehensive, clear, and instructive as we are able.

The Editor also claims the privilege, once in the year, of offering—deferentially, of course—some hints and suggestions to both correspondents and readers, of explaining the past, and expressing

* The learned quoter of the above paragraph might have more appropriately compared the two learned pundits to the two Kings of Brentford, who entered smelling at one rose or nosegay. The two Virgilian shepherds were prepared to banter each other; the two modern representatives of the Brentford monarchy, unlike the shepherds, are celebrated for singing the same song, *Eandem cantilenam canere amabant.*

hopes of the future, and hereby endeavouring to remove hindrances to the enlargement of our knowledge and to the enjoyment of the pleasures of botanical science and correspondence. As we are about to co-operate for another period, we should divest ourselves as much as possible of personal feelings and sectarian tendencies, which are so embarrassing and prejudicial in all undertakings.

In our brief notice of the past year's proceedings, we assign the first place to the few botanical works that have come under our notice. If there be any others which are not here, our apology to our readers is, that the authors did not seek our opinion; and as we believe that counsel is impertinent or intrusive when it is not asked for, we abstain from criticism when we are not desired to exercise this part of our function.

The first book on our list is entitled, 'Sketches of the Natural History of Brighton,' which was reviewed with some detail in our May number. This work, though not exclusively botanical, is an important acquisition to our stock of local botanical literature. The botany was drawn up by one who is well acquainted with the subject, and it may be relied on as a fair contribution to our knowledge. It will be a nucleus for more extensive researches, and it may be amended and enlarged in subsequent editions.

The Rev. T. F. Ravenshaw's work, 'The New List of the Flowering Plants and Ferns growing wild in the county of Devon,' contains several hundred species hitherto to be found only in several detached publications or in private memoranda.

Besides these works, there was published early in this year a complete Flora of the parish of Harrow, in a local newspaper. As a nearly entire reprint of this appeared in our number for April, we need not do more here than merely notice it as the only modern catalogue of Middlesex plants in print, and as a foundation for an entire and complete Flora of the most important of the metropolitan counties.

Another county Flora, by the learned author of the 'Manual of British Botany,' has also been issued since the spring of the past year. A review of this comprehensive work will shortly appear.

The 'Visitor's Guide to the Isle of Wight,' only announced in our pages, contains a succinct account of the botany of the island, drawn up by one of our contributors. A notice of this work is

also in the Editor's possession, and it will be printed as soon as possible.

Another little book on the botany of Dover and its neighbourhood has also been sent us, and a review of this is under consideration.

The paper called the 'Isle of Man and its Flora' is one of the most interesting later additions to local botany. The reverend author of this very graphic sketch of an insular Flora, honoured the 'Phytologist' by presenting his list to us for publication. We expect soon to have the pleasure of submitting to the readers of our journal another insular Flora from the opposite coast.

G. Munby's 'Catalogus Plantarum in Algeria,' Crépin's 'Flore de Belgique,' 'Enumeration of Ceylon Plants,' 'Index Filicum,' 'The Useful Plants of India,' 'Species Filicum,' etc., are omitted in this report, as works which have little or no connection with British Botany.

We have much pleasure in again calling the attention of the readers of the 'Phytologist,' and especially of those who are more or less acquainted with the botany of Essex, to Mr. Gibson's announcement of his forthcoming Flora of this county, and of his desire of further information. A hint has reached us of another county Flora by a well-known botanist; but as there is no direct notice of the forthcoming work from the author himself, we forbear to publish it, though its speedy appearance has been announced on good authority.

The above-named works, either published or in progress, show that British botanists are not hiding their talent in a napkin, nor letting their energies flag. Several of them are making considerable sacrifices of time and labour, if not of money, in order that their contemporaries and posterity may enjoy the fruits of their observation and experience.

A hint is humbly offered to those authors *in futuro*, who are waiting for more information before committing the results of their labours to the press and ultimately to the public. From general experience, and from our own also, it may be pretty confidently predicted that they may wait till the Greek kalends, and wait in vain. How do the Essex botanists, for example, or those who have at some previous period resided and botanized in that county, know what additional information the author wants or wishes? B. may send to A. many facts which A. knows already:

how is B. to know this unless A. and B. have been previously corresponding? The author *in posse* circulates his intentions, his wants, and his wishes. "Give me," he says, "your ideas on the subject: how would you treat it?" And he seldom gets any facts, suggestions, or hints, till the time is past when they can be serviceable, and the disappointed author has frequently to complain that the knowledge came too late. But let A. paint his picture, or lay out his garden, or plant his shrubbery; or let the author *in futuro* write or compile his book, and then B. will be able perchance to offer A. some fresh hint, or give him some original information. A. should not say it is too late. Apelles and Zeuxis exhibited their paintings,—their works, not their intentions,—and listened to the criticisms of cobblers, and used them in the emendation of their celebrated productions. The eminent printers of the sixteenth century stuck up their proof-sheets on the gates of schools and colleges, and challenged the students and scholars to detect an error in their composition; hence the immaculate editions of the Scriptures, classics, and other works issued from the presses of those early and learned typographers.

If an author will venture to publish a county Flora or a Flora of any sort, he will not have to wait long for criticism. Fault-finders, who see blemishes or defects in the best workmanship,—who see motes or spots on the sun,—and good-natured friends with their sage advice, which sometimes comes too late, will flock to the inspection and dissection of his work like bees to a honey-pot.

The German and Italian printers of the olden times stimulated the acumen of the youths to whom they submitted their proofs by offering a reward of a florin or of a crown for every error discovered. A botanical author may get his work corrected and save his pocket; for scores of mistakes will be either courteously or uncourteously brought to his notice. This botanist says he has entered too many plants, that one asserts that he has entered too few. One finds fault because the Beech is called a native, another that *Anchusa* has no star, and that the *Snowdrop* has no dagger. And probably no two botanists in Great Britain will agree about the numbers and limits of species in *Hieracium*, *Salix*, *Rubus*, etc. The author of a Flora will be shown his defects for nothing; and if he be wise, he may learn something from

all his instructors, though they are far from being unanimous; knowledge, like sorrow, never comes too late. But if he be sentimental, he may well say with the sentimentalist of old, "Grant me patience, just Heaven! Of all the cants that are canted in this canting world, though the cant of hypocrisy may be the worst, the cant of criticism is the most tormenting."

In the last century, when the botanical public was smaller than it is now, authors were few and far between. The revered names of Hudson, Withering, Relhan, and Sibthorp were representative, and their works embody the history of British Phytology for above half a hundred years. There are now more works published in a season than there were, in not very remote times, issued in three generations. Then the cares and responsibilities of authorship were probably more onerous than they are in our days; but the rivalry was much less, and the honour much greater.

Authors then were indeed *inter aves rariores;* like the Phœnix, which appeared after long intervals, and unlike this bird, for they have perished and their works are forgotten; their *dicta* and opinions were received as oracular, and they themselves were canonized among the celebrities in the annals of science. To have only indicated a shade of doubt about the veracity of their statements, and about the absolute perfection of their works, would have brought upon the unhappy sceptic an avalanche of contradiction, a torrent of reproof, an anathema as sincere if not as formidable as the thunder of the Vatican in its palmiest days.

The times are changed,—*tempora mutantur et nos mutamur in illis.* Authorship is now less esteemed because it is not so uncommon. Authors are known; formerly they were unknown, except by a select few. In them the old saying was exemplified, "*Omne ignotum pro magnifico.*" But reputations are still obtainable even in botany; there are niches in Flora's temple still unoccupied, but they are not so easily achieved as they were in the days of our forefathers.

The authors of the county Floras, either published or in progress, are respectfully informed that the pages of the 'Phytologist' are freely open to them for the announcement of their intentions and for the publication of their desiderata. The Editor will be most happy to receive and print all suggestions for the improvement of local botany, and enter all additional informa-

tion about recently discovered plants or new localities for previously known rare species.

Since the publication of the Floras of Brighton, Devon, and Harrow, notes have reached the office of the 'Phytologist,' requesting that certain additions should be made to these local lists of plants, and that additional localities for others should be recorded. This will ever be the case. When a list, or county or local Flora is published, all who read it will endeavour to supply its omissions or amend its defects. This cannot be done previously, because the deficiencies or inaccuracies in the knowledge of the author are unknown.

The reverend author of the 'Flora Hertfordiensis,' which is perhaps the most carefully compiled local Flora in Britain, publishes supplementary parts whenever a sufficiency of matter to fill a sheet has accumulated. This plan of publishing supplements has succeeded in the case of larger and more expensive works than county Floras, and it is to be recommended on the score of economy. A new edition mostly supersedes the original work, but that objection does not hang to a supplement.

Several series of new species,—new at least to some readers of the 'Phytologist,'—have been submitted to British Phytologists.* For further particulars of these species, or segregations, as some one pedantically calls them, or *splits* or *chips*, as they are rather irreverently named by others, the readers are referred to vol. iv. pp. 87–89, 121, 138–139.

These real or presumed additions to the British Flora are very plainly and carefully described in the Reports of the Thirsk Natural History Society, and by a correspondent who entitled his articles on this subject, 'Which is *Ranunculus heterophyllus?*'—'Look after *Draba verna*,'—'British *Lepigona*.' It is not necessary to enter here the outlines of these papers, nor even to name the plants.

Whatever may be the opinion of botanists in general about the validity, or genuineness, or permanence of these species, if they be thought worthy of this dignified rank, there can be no

* This double meaning of the term Phytologist is very tantalizing. Properly it is the name of a person, not of a book; as geologist, entomologist, etc. The title of our work should be, 'The Phytological Magazine,' if we wanted to give a learned title to our humble periodical. We hope our readers will not give us the credit of inventing this pedantic, ambiguous name.

question about the moderate views promulgated by their advocates. Their claims have been urged clearly and briefly, in order that their distinctness may be tested by the observation and knowledge of others. Their distinctive characters are contrasted, and the readers or judges are left to draw their own conclusions. All that need be said here is that the pages of the 'Phytologist' are at the service of those who reject or disown these novelties, as they have been open to those who have temperately urged their claims on the attention of our readers.

During the past season a few plants have to be recorded, seen at Wandsworth steam-boat pier, certainly a British station, and if the plants are not British, they grow on British soil, at Battersea, Chelsea, and Parson's Green. These are all importations, whatever be their status in the national Flora of Great Britain.

The first place is given to *Lathyrus tuberosus*, of which only one plant was seen, and was not recognized then, but, as has been stated already in the 'Phytologist,' vol. iv. p. 318, was taken up and replanted in the garden; and when the report of the discovery of the species at Fyfield, near Ongar, in Essex, reached Chelsea, the Wandsworth plant was examined, and it proved to be this interesting species. We expect an historical account of this plant as a *true Briton* for a future number of this journal.

Several other plants have been detected in the above localities, though notices of only a few have as yet appeared. Their non-appearance has been caused rather by want of room than want of material. It is believed to be good policy to prefer contributions from distant correspondents, to editorial communications;—to cause the latter to make way for the former. The Editor is expected to be more tolerant of delay than contributors. But his articles on this subject, though deferred, are not lost; as the French say about an expected pleasure, "Un plaisir différé n'est pas perdu."

The new stations observed for rare plants, and communicated for the first time, during the past year, are numerous and important; they are so many that this part of our report must be epitomized, or it would fill more of our space than can be conveniently spared.

The most important discovery in local botany is that of *Sonchus palustris* in Plumstead marshes. The species is by common consent admitted to be one of the very rarest of rare British

plants; and this station for it is one of the most satisfactory of British stations. It is as remote as it can well be from a centre where the plant could have been cultivated, and it grows here in so great abundance that the herbaria of all the botanists in England might be furnished with specimens without detriment to the locality of the plant. It covers, when in flower, another rare species, *Leucojum æstivum*, a plant for some years lost, in its old station, opposite Blackwall.

Much importance will not be attached to the discovery of *Isatis tinctoria* at the Wandsworth station of the West End Crystal Palace railway. The banks of railways are notable for producing many species which in the phyto-geographic phraseology now current are very properly called suspected aliens. If not aliens to the soil of Britain, they are aliens in these places. Yet it is impossible to define very satisfactorily what are and what are not alien species. Even here, as Mr. Lloyd very justly observed in his notice of the above migratory plant, there are, not a quarter of a mile lower down the contiguous line, three plants which were unknown on Wandsworth Common less than twenty years ago; all of them non-migratory, most impatient of removal and cultivation. How came they to their present locality? Nobody doubts their British birth, though they are new comers to the Wandsworth Common station, like the *Isatis*. If plants are to be discarded *quasi* railway species, we should reject *Drosera*, *Lycopodium*, and *Osmunda*, because we know that they were recently introduced into the station adjoining the railway, where they are now found. One of them, the writer is sorry to tell his readers, is no longer in that artificial swamp. Only a few years ago it was there, but unluckily it attracted the attention of a young Wandsworth botanist, and he, as many others do, made private property of a common plant. The plant still exists, and may be seen by the curious in such matters. This young disciple of Linnæus, who has not before his eyes the fear of Mr. Hewitt Cotterell Watson, the eminent chorographic botanist, intimated, when he was chidden for taking away a rare plant, the only one of the kind there, that he would transfer a bit of the root to its original station. Surely the fact that the Royal Fern can be transplanted will not unsettle its claim as a British species. But even if so, the fact that the *Osmunda regalis* can be transplanted, will not upset the nativity of the re-

maining two plants, the *Drosera* and the *Lycopodium*, which will not bear transplantation.

The most important plant next to *Lathyrus tuberosus* and *Sonchus palustris*, for which a new station has been reported, is *Maianthemum bifolium* (*Convallaria bifolia*, Linn.). The plants wherewith this rich and rare gem of Flora's coronet was associated, are genuine natives (*omnium consensu*) and their station, which is that of the *Maianthemum*, would have increased our list but for their accidental publication in a local guide.

This fact is a weighty proof of the importance of local lists, and an encouragement to those who avail themselves of their utility to give them a wider circulation than that for which they were originally compiled. How many of our readers have seen this Scarborough list, or even heard of the Forge Valley? Still these are facts, whether ignored or admitted* *in certain quarters*. It is true that there is such a place as Scarborough; many of us have seen the town, and "seeing is believing." I believe there is a locality near Scarborough called Forge Valley, because I have been told that there is a place there known by this name. I further believe that in a wood somewhere in Forge Valley, in the neighbourhood of Scarborough, *Maianthemum bifolium* grows, because I was informed of the fact, and received, with the information, a specimen of the plant. This fact was previously unrecorded, and the growth of *Actæa spicata*, *Trientalis europæa*, *Pyrola minor*, etc. (see vol. iv. p. 232), was recorded only in a local list, and these additional facts were probably unknown to two-thirds of the Yorkshire botanists.

Lastrea remota,† discovered some time ago in the latter district, was announced for the first time during the last summer. (See 'Phytologist,' vol. iv. pp. 137, 227.) As its credentials are indorsed by Mr. Thomas Moore, the most eminent of British pteridologists, there is no doubt about the propriety of its admission among the discoveries of the past year.

* We wish our obliging correspondent Mr. Reynolds would take the trouble of writing out a list of the rarer plants about Scarborough, for publication in this periodical.

† Has *Lastrea remota* passed muster as a species and as a British plant? It is suspected that *Chenopodium Botrys* must be put in the same class as the Wandsworth plants. It was collected at Hagley years ago; but, like many other and more valuable things, it did not meet with a famed historian to transmit its claims to posterity. *Sic transit gloria!*

Ornithogalum pyrenaicum has been reported as observed growing abundantly in some of the woods at East Ilsley, in Berkshire. (See vol. iv. 270, and Index.)

The confirmation of a previous discovery, viz. that of *Gentiana Pneumonanthe* near Chobham, in Surrey, and the detection of a new station for *Schœnus nigricans* on Bagshot Heath, appropriately appear as a conclusion to the local botanizing of the season.

The new stations for rare plants recorded by Mr. Sim are, as usual, very numerous, and more than usually important. *Veronica peregrina*, hitherto unknown as a British plant, although previously recorded in the 'Phytologist' as a true Irish species, is among the most important of the new discoveries about Perth. The newly recorded stations, or the confirmations of some hitherto dubious localities, are far too numerous to be entered here. We have only room for the following, viz. *Anchusa sempervirens* in woods near Dunkeld. Our correspondent expresses in strong and unmistakable terms his belief in the nativity of this plant. It was seen by ourselves in Roslin woods, and it appeared to be quite as much at home there as *Myosotis sylvatica* and *Geranium sylvaticum*, only it was not nearly so plentiful as either of these species.

It is believed that Fife is a new station for *Verbascum Lychnitis*; not new in the strict sense of *new*, viz. that the plant never grew there before; but it is believed to be a newly discovered locality, one not known before the visit of our correspondent to the ruins of Lindores Abbey.

Mr. Sim has very recently informed us that the station where he finds *Cynoglossum sylvaticum* is not in the Carse of Gowrie, the station where it was seen by George Don, and reported in Hooker's 'Flora Scotica;' hence he infers that there may be two stations in Perthshire for this rare species.

Our Perth correspondent has discovered, in an island in the river Tay, the noblest of all Scotia's noble rivers, a new station for *Lathyrus sylvestris*. This rare Scottish plant is probably not quite a new discovery to the botanists of Scotland, but none of them have observed it previously so far north. Indeed, like the shepherd, sung so pleasantly by Horace, who wandered far from home, "*Ultra—Terminum curis expeditus*," this fine plant has wantonly transgressed the laws and leaped far over the limits assigned as its legitimate bounds, careless (*curis expedita*) of the disquietude it thereby causes to phyto-geographers.

Some of our readers, perhaps many, have seen an unkind notice of Mr. Sim's discoveries, which we consider of no mean or common order, by one of our readers who is notoriously unfriendly to the 'Phytologist.' The author of the aforementioned notification rather harshly blames our correspondent, and it may be added, the inoffensive humble person with whom Mr. Sim is so kind as to correspond.

Another of our correspondents sent us a rather reprehensive review of the effusion to which only an allusion has been made. This review was declined, for reasons which appeared cogent to us, and it is hoped that they were satisfactory to our correspondent who sent us the article.

We do not, on the present occasion, mean to trouble our readers any further about this offensive paper; though if left altogether unanswered, it might possibly be injurious to us, and it was probably circulated with such an intent; but any of our friends may, on application, have a perusal of this and of several other similar documents.

The Editor trusts that his friends and well-wishers will have patience with him for a *month*,* only a little month, and then he engages to prove to their entire satisfaction, that he is not guilty of printing and publishing false and groundless reports, nor of what is far worse, falsifying his Index to hide his own carelessness. He is as innocent of both those charges as he is of taking improper liberties with the wife of his friend, or of stealing his neighbour's sheep.

The Editor published it, (the reader may say, what?—let him have patience, the whole case shall be laid before him,) as an example and illustration of the physical capabilities of some plants to bear considerable vicissitudes of climate,—as a fact confirmative, not subversive, of Nature's law, viz. that the distribution of plants, or the extent of the earth's surface which they may occupy here and there, is limited strictly by their idiosyncrasies, or, in other words, all other laws, (but those determined by the ability of the plant to bear heat or cold or any atmospheric change whatever,) made and provided for limiting the areas or the altitudes of species are vain illusions, the idle fancies of would-be-thought discoverers of the laws of Nature.

* The whole material necessary for dealing with this case is now in the hands of a correspondent who will treat the affair with justice and moderation.

For the present also we hope our amiable correspondent Mr. Sim will also have patience with us. We do not deny that he has feelings and susceptibilities just like other men, nor that they have been sorely tried. Botanists, like poets, are occasionally liable to fits of irritability. His wrongs shall be rectified, and the saddle put on the right horse. There is a time for everything; but the festive season of Christmas, when our hearts should be overflowing with a grateful sense of the deliverance accomplished for us many centures ago, and which we now commemorate, is not a fit period for writing angry diatribes against our fellow-mortals and fellow-sinners. The effects of good fare and of cheerful social intercourse naturally indispose us for redressing personal grievances.

The Editor of the 'Phytologist,' however, has the pleasure of bearing a faithful although feeble testimony to the merits of his amiable Perth correspondent, and confidently avers that he does not know a more single-minded, trustworthy, truth-loving, upright man alive. In his short notice of what he saw, and which we published in another part of this journal, he gave no opinion about the origin of the plant, and also refrained from all remarks which could have been offensive to the most sensitive of phyto-geographers.

Our correspondents would soon forsake us if we were not faithful to the principles which we publicly avowed when we undertook the management of this periodical. We are bound by our well-known professions as well as by our private inclinations, to publish all botanical facts, by whomsoever they may be reported. Our readers will see more on this head in a subsequent page of our address.

One or two remonstrances have reached the Editor about the unsatisfactoriness (what a long word!) of anonymous announcements and nameless contributors. Our justification may be stated in the old saw, "Necessity has no law,"* or in a similar well-known and pithy proverb, viz. "We have Hobson's choice, this or none." It is surely well known to all our readers, for it has often been stated, that all contributions are gratuitous. Our contributors know this; some of them by long experience. If the articles were paid for, we might not always have them on *our*

* The sense of the Greek proverb is, "Necessity is the strongest thing, for it conquers all things,"—κρατει παντων.

terms; as they are *unpaid*, we must receive them on the conditions imposed by the contributaries.

But it is a great mistake, and one which has often been corrected, to assert that any article printed in the 'Phytologist' is anonymous. This however has been repeatedly and pertinaciously affirmed, and there is no more truth in it than there is in the equally positive affirmation that the omission of the 192nd page of the third volume of the 'Phytologist,' either before or after the entry of the page where the obnoxious plant, the Balearian Arenaria, is entered for the first time as a plant new to Scotland, was a *significant* proof of the *mala fides*, the faithlessness, of the Editor.

The Editor has asserted over and over again that he takes on himself the entire responsibility of every article that is printed in the 'Phytologist.' In order to save himself from the consequences of omissions, blunders, etc., he prints *no facts whatever, however trivial, on anonymous authority*. Although a very few contributions have the appearance of being anonymous, because they are subscribed by a letter or by two letters, sometimes with initials of real names, and sometimes with fictitious names, their authors are all known to the Editor.

As these contributions, which are apparently though not really anonymous, form a considerable portion of the trading stock of the grievance-mongers, and are also, it may be admitted, occasional sources of embarrassment, trouble, and vexation to the Editor, a brief explanation may be here given, and we hope it will convince the convincible that this is one of the encumbrances inseparable from our editorial functions.

By prescriptive right, all reviewers are entitled to the privilege of secret or irresponsible publication. It is sometimes supposed that the Editor writes the reviews, but several of our contributors know that they are not *all* written by the Editor; but they are all, very properly, anonymous. Many reviews, in modern times, are such milk-and-water messes, such wishywashy affairs, that anybody might write them, and the most timid might subscribe his name at their conclusion. But they are privileged articles. It would be *non selon les règles*,—"contrary to custom,"—for the author of these articles to sign his name as a guarantee for the genuineness of his article.

Again, all communications from the *fair sex* are by universal

consent suffered to appear anonymously, unless *they* happen to be authors by profession. Such a liberty as that of publishing their names, would be resented by their fathers, husbands, brothers, and by a host of male friends, admirers, etc. Would any man be so fool-hardy as to risk the fate of Pentheus by publishing a list of his fair correspondents?

There are a few and only a few of the sterner—I will not call them the braver—sex, who stipulate that their names shall *not* be printed, although their communications are of *bonâ fide* character. These and all others who prefer it have the full sanction of the Editor to withhold or publish their names as they please. To save their feelings from hostile criticism, or their lives from subsequent trouble, or their houses from intrusion, they publish anonymously. Some have one object, some another, and some probably have no object at all, but whim, and the pleasure of mystifying *quidnuncs* (excuse the solecism) or *curiosos impertinentes*.

In all these cases the Editor is responsible for the truth of the facts entered anonymously, or under fictitious names; but he knows the correspondents, and the contributions are sent under the conditions of secrecy. They have confidence in the Editor that he will not bewray them, and he has confidence in them that they will not impose upon him nor send him mare's-nests, and thereby make themselves and him ridiculous. It is not expected that any editor, supposing him to have got much experience by living long, seeing much, and thinking more, can be aware of all the changes which are daily taking place in the relations of plants under many circumstances, and in places far distant from his residence and usual haunts. He therefore necessarily must rely upon the testimony of others who have seen what he cannot see, although well acquainted with the botany of the places where he has resided at various times. *He* does not, while living in London and studying the history and character of plants in books and in herbaria, profess to know what grows in Devon, Wales, and Scotland better than those botanists who are resident in these parts of the kingdom. The Editor of the 'Phytologist' is not gifted with the second sight; he cannot, while botanizing in Surrey, see plants growing on the hills of Kinnoul and Moncrieffe.

No facts are printed, as such, in the 'Phytologist' on anony-

mous authority. As Helenus said to the Trojan hero, the mythic founder of the Roman empire, "*repetens iterumque iterumque monebo,*" there is no such thing practised. Our correspondents and contributors know in general, and if there be any who do not know it, they are hereby informed, that they may get any further information about any fact or contribution whatever, by privately applying to the Editor, or by stating their requests through the medium of the 'Phytologist.'

In these cases, in modern advertising phraseology, an early application is recommended. The most retentive of memories are sometimes jogged in vain. The circumstances of long-past discoveries are but indistinctly seen through the mist and haze of bygone transactions; memoranda are often mislaid, or, what is as bad, cannot be found when wanted; occasionally they never existed except in the good intentions and slippery recollections of the discoverers. There is a term, well-known in law, called "the Statute of Limitations," or seven years; within which time a claim must be made, otherwise it will be "barred" by the said statute.

Any query about facts published anonymously or undersigned by initials or fictitious names, should be made early, for the reasons above stated; it should not be delayed till, in legal phrase, it is barred by the Statute of Limitations.

It will be a pleasure to the Editor if his correspondents freely take the liberty of consulting him on all occasions, either about plants or contributions. He will heartily and readily afford all the information he possesses, either privately or through the medium of the magazine. But he shrinks from taxing the memory and patience of his friends beyond certain limits, or, in plainer terms, he would demur to ask a contributor for more definite explanation of a fact which had been printed seven years ago, even though it had appeared in the 'Phytologist.' Most persons of experience know how teasing and worrying these explanations of long-past observations become. We have not forgotten the unbecoming squabbles and sharp altercations recorded in the Old Series of this journal, and therefore it is advisable to confine the occasions for controversy within as narrow bounds as practicable, and endeavour to avoid a renewal of the unpleasant reminiscences of the years that are past.

We have another word to say to our correspondents before

taking our leave. Occasionally their kind missives reach us just after the entire copy (notice to contributors and all) has been sent to press. It is not convenient to recast the last page on which these appear, and consequently our friends must wait a month or more before they see the acknowledgment of their contributions. Although connected with the press in one way or other, less or more, for nearly forty years, I have never known any copy or proof lost, through the carelessness of the Post officials, but *one*. Our correspondents therefore need not take the trouble of inquiring about the reception or non-reception of their articles. The ratio of their safe delivery and safe custody is to the probability of their loss as about ten thousand to one.

It is not impossible that we might forget to notice their receipt, but that they have been miscarried or lost, if sent through the post-office or through any of the public accredited means of conveyance, is most improbable.

It is to be regretted that one of the subjects submitted to the consideration of our contributors has hitherto been productive of no results. Perhaps a dozen readers of the Phytologist responded to the appeal made for help in compiling as complete a list of English botanists—one as complete as possible—with the sanction of the owners of the names whereof it was to be composed. With one exception the proposal met with much approbation, and it has been asked, and the question is not an unreasonable one, why so good an intention has not been carried out as originally promised and intended. The only reason to be given is to be gleaned from the reply of a Greek paterfamilias, as related by Hierocles, or some other merry Grecian. When the former was asked why he took his little dead son out by a back door or back window to be interred, replied that he was ashamed to bring out so small a child before so large and grand a company, assembled at the front of his residence, to assist in performing the funeral rites. We were ashamed to publish the few names transmitted to us before so many who are doubtless as eager to promote British botany as they were, but who might not choose to publish this to the world. It is hoped that the eminent botanists who consented to have their names entered in the proposed list will accept the above as an excuse for the non-fulfilment of their request.

Every man should be the best judge of the cogency of the

motives which may induce him to embark in, or not to engage in, a specific series of obligations of a voluntary nature. We are not, and do not profess to be, able to adjudicate for any one in such affairs; we only laid before our readers what was suggested to us, and which received our cordial approbation.

We regret, as has been stated, that our good intentions could not be realized for the reasons above stated, but we have not abandoned the project. But on mature reflection we are convinced that a list of the botanists who have authorized us to publish their names for the aforesaid purpose (see our Address for 1860) would be, to use a proverbial simile, like taking coals to Newcastle. The addresses in our possession, viz. those which we have authority to publish, are about as notorious as 45, Frith Street, London, or 28, Upper Manor Street, Chelsea. Surely the merest tyro who has acquired but a smattering of the literature of the science, knows that the author of the 'Manual of British Botany' lives at Cambridge, but who except his most intimate or privileged friends would take the liberty of intruding on his privacy, or of interrupting his scientific and learned labours? The eminent individuals who have consented to assist in this movement are not exactly those who are earnestly and humbly requested to suffer their names and addresses to appear in the 'Phytologist.' If the gentlemen who are anxious to promote the knowledge of the plants of Britain, to ascertain their census, area, habits, peculiarities, etc., are alone to be the subjects of such a catalogue, containing more of detail than a mere list,—for example, addresses, department of botanical science professed, etc., as that originally intended,—we may state that there is one printed and circulated with the annual volume of the 'Phytologist.' Those who possess the four published volumes can draw up for themselves a list of all the distinguished British botanists in the kingdom. Their residences are generally known; and their particular address may be procured by a private application.

The aim of the 'Phytologist,' for the last half-dozen years, has been to introduce botany into the homes and houses of the humbler ranks of society; to encourage a taste for such elevating recreations among those who have fewer objects of gratification, than are within the reach of the so-called favourites of fortune; to afford means of indulgence in the pleasures of research, observation, and comparison, to a class which has been sometimes

considered incapable of the enjoyment of science, and unfitted, by want of education, for adding anything to its resources.

Our object is twofold, viz. to increase the knowledge of plants and of their relations, and to increase the number of those who take an interest in the subject. The science will be expanded by the increased number of observers. We want to widen and deepen the channels of instruction, to procure more information, and to spread it over a wider extent. We wish, parodying the ancient distich,

> "That those may read (the Phytologist)
> Who never read before,"
> And "that those who always read
> May now read more" (botanical works).

The 'Phytologist' flies at humbler game than the *élite* of the botanists of Britain, thought it does not reject help from any quarter. If the latter class condescend to patronize its well-intentioned efforts, to enlarge the mind by exhibiting science in as attractive a form as possible, it is hoped that we are not ungrateful for their patronage, nor undeserving of such acts of benevolence. But we aspire to the honour of occupying a wider sphere—not offering assistance to those who can help themselves, but being helpful to all who will accept help at our hands; to cater for the *οἱ πολλοί* (the million); to disseminate sound information among as many as can be reached through our means. We know that there are collecting botanists about Manchester, also in North Wales, in Surrey, Hants, etc., and no doubt in several counties and in many towns of the United Kingdom. There are young men, amateurs, who would be very much encouraged as well as enlightened by an occasional intercourse with those who may be denominated veterans in the science. And the benefits of an enlarged communication between the older and the younger members of the confraternity would be mutual. The latter have much physical energy, quick apprehension, and endurance of correction; the former have more experience, tact, and judgment. A list of the *viri obscuri* who are notoriously attached to botanical pursuits, and who are known to our correspondents as persons who would not decline, when they had nothing better to do, to go out as guides to visiting botanists, and who would not think it degraded them to receive compensation for their time, (only what would be adequate remuneration

if at their usual employment,) and who would think it an honour to have their names printed in the 'Phytologist,' is with us a special *desideratum*.

During the time that this Address has been in hand, we have been favoured with more than one communication, convincing us that our humble efforts in the educational line have not been altogether unappreciated, nor totally unproductive. A zealous north-country correspondent, a veteran it is believed, like ourselves, has hunted up his botanical friends on the eastern borders, and has sent us a brace if not a leash to put in our botanical game-bag. What is still more gratifying, we have received from the same district a paper on local botany, drawn up by a youth, who will not be offended to be described as a *tyro*, for he is in the strictest sense *in statu pupillari*; but his knowledge, diction, and good sense, would be creditable to some who are probably older than his grandfather. He has read his 'Phytologist' to good purpose, and the fruits of his reading have appeared after *not many* years.

It is by the united efforts of local botanists alone that the Flora, of even a small kingdom like Britain, can be successfully investigated. The 'Cybele,' which is a collection and condensation of many of the facts known at the times when the several volumes of the series were issued, is also a fair proof that science or knowledge is continually progressive while books remain stationary. There are many facts now well-known about the British plants, their history, area, census, habitats, climatic peculiarities, etc., which were not discovered when the publication of this useful work was begun, and it may be added since its conclusion. A continuous work alone is the proper depository of such discoveries.

No recorder or reporter of fresh facts illustrative of the Phytology of the British Isles will be deterred from communicating his observations and the result of his experience by the superciliousness and repulsiveness of the Editor, nor alienated by his dictatorial demeanour.

It is unquestionable that the 'Phytologist' is the only work that comprehends and *continues* the history of the British species in recent times, and it must be the only source from which the future historians of our Flora can draw their materials, and hence the importance of enlisting into the ranks of its supporters all the active, fresh, youthful botanical energy of the country.

There are, it may be assumed, no naturalists, however humble their acquirements are, and however lowly their rank in society may be, who have not seen some hitherto unobserved facts or phase, or phenomenon of nature. Observations, experiences, and useful inferences are, it may further be assumed, often lost because not recorded at the proper time; this fear of communicating the result of experience often arises from *mauvaise honte*, an excess of modesty which indisposes its possessor to seek publicity, lest ridicule and contempt should be the reward of his humble attempts to enlighten others, or to direct them to a source of gratification which has never disappointed him.

We are far from advising young persons, or indeed any persons not pretty well aware of the difficulties and dangers of literary composition, to seek "the bubble reputation" either "at the cannon's mouth" or at the typographer's press. It will assuredly be more for their own ease and comfort if they rather shun than seek notoriety, till they have something to write about which nobody knows but they themselves, and which nobody can tell so well as they can. And even when they have got the materials for composition, if their grammar or their logic fails them, they will find more to laugh at their mistakes than to help them, or to sympathize with them in their disappointment. These need not have the slightest fear when they entrust their hoarded scraps and stores of knowledge about plants and their associations to the Editor of the 'Phytologist.' They may freely expatiate on the feelings of delight and joy which they experience when they discover a plant formerly to them unknown; and they may communicate the notice of their simple rational pleasures to one who has still as keen a relish for these pursuits as he had in bygone times. If he cannot participate in *their* enjoyment, he can sympathize with them and encourage them. He has not forgotten the good effects on himself of encouragement judiciously bestowed. The contributions made by those who may very properly be called *tyros* in botany, will be as safe in his custody as the confession of the penitent in the bosom of the confessor, or as the affairs of a client are in the hands of his legal adviser. There is no blabbing of secrets which are committed to us. We do not print the letters of our private correspondents without so much as saying, 'With your leave'!

Our readers, it is hoped, will tolerate another word, which

indeed does not concern all of them, nor the major part of them, but only such of them as criticize what they read. We rather encourage this propensity in all our readers. We are critics, and nothing unless critical; and we only want to regulate this bias of humanity, not to forbid its manifestation. There are, and always have been, fault-finders, who complain of the fare furnished them as deficient in quality, or in quantity, or in both.

These readers and contributors also, for they sustain both characters, are reminded, *not for the first time*, that the 'Phytologist' is at their service for bringing their complaints before the readers in general. In our pages they have the opportunity of propounding all sorts of proper and answerable questions, and a place where they may state, temperately of course, their opinions about any paper or article, or controvert any fact printed in the magazine; to offer *their* views *omnibus de rebus et quibusdam aliis*.

If any mistatement appears, or any real or fancied grievance is discovered in any article, the discoverer or the complainant is respectfully invited to send his plaint or his discovery to the Editor immediately for publication. He begs leave to suggest that correspondents need not take the trouble of writing to him privately on the subject; a short note in the 'Phytologist' may generally be sufficient to answer the requirements of the case.

The Editor will of course exercise his privilege of modifying such strictures and remarks as might be offensive to the author of the article which may become the subject of censure; but he would rather not be made the medium of conveying animadversion privately. He is a censor only in his public capacity as a critic and an Editor.

This is confessedly the courteous mode of proceeding in all such cases; and it is not only the most useful course, it is also the common practice of journalism. It is but fair to give every writer the opportunity of meeting the charge urged against *his facts* or his views, that he may either defend, retract, or modify his previous convictions.

Of course the Editor cannot vouch for the perfect immaculacy of every article which he commits to the press. He must rely on the fidelity and accuracy of his correspondents: but he professes entire impartiality on all botanical subjects, and endeavours to deal fairly with all who contribute to the miscellany.

We conclude this subject by repeating that every correspondent is desired to express fully and freely his opinions on all matters connected with botany, or the management of this magazine; to offer his counsels, or suggestions, or hints with manly independence, as a promoter of science, and not as a partisan, and without troubling himself about the possibility of his views being either pleasing or distasteful in other quarters.

Every one will admit that he who writes for the instruction of the public, must study the style of conciliation, and abhor the inspirations of the spirit of detraction, and strive against egotism and self-laudation; but every botanist may not only avail himself, to the utmost latitude, of the 'Phytologist' for the contradiction of any statement that appeared therein, but he may exercise his privilege of preserving his incognito, of wearing his mask where and when and as long as he pleases, without a question about his motives for concealment.

The Editor apologizes for the unusual length of this article. Since he undertook the editorship, now nearly six years ago, there has been no necessary cause for so long and so unpleasant an Address as the present. He begs to tender the excuse, usually made by those whose indulgence of themselves, at this festive period, has passed beyond the limits of moderation, viz. that "Christmas comes but once a year." He, for the succeeding eleven months, abandons all exclusive claims to the pages of the magazine, and freely offers them to those who have something more cheering and instructive to offer to the readers than complaints, remonstrances, and requests, for redress of grievances.

In saluting our friends "with *congé* profound," *i.e.* making our bow and courteously retiring, we beg to present them all with the usual civilities, the customary compliments of the season, assuring them that with the *past* we are well contented, and that we see much that is both hopeful and encouraging in the prospects of the future.

In taking our leave of the Old Year, with only a few regrets at its departure, we introduce its successor with the charitable hope that it will not be worse than the last, the weather only excepted: this was so tantalizingly bad, so provoking by its continuous changes from bad to worse, that an apology can hardly be offered or accepted in its behalf. In bidding adieu to our readers, we offer them our good wishes, and pray that they may enjoy as

much prosperity and contentment as we hope and desire for ourselves.

From these charitable aspirations the friend who has been the cause of our inflicting so long a programme on our phytological supporters, is by no means excluded. As we are not profound physiologists, like Dr. Carpenter, nor deeply conversant with the laws of natural selection, so ably illustrated by Mr. Darwin, all our conjectures about the secret causes which grieve our friend would be only abortive efforts to discover what is possibly a mystery to himself. Whatever be the origin of his distemper, it is clear from the symptoms that he is smarting under some imaginary ill, or is letting his clear philosophic mind become beclouded by the darkling shade of jealousy and disappointment. The torrents of abuse, the cumulative rebukes, so plentifully poured out and heaped on a few scientific sinners, that can barely see an inch before their respective noses, for supposed offences against laws never appointed by Nature, are surely too cogent proofs that they proceed from a mind ill at ease. All attempts to lead or scare such a herd of mediocrities, or imbeciles, is just labour wasted, like milking the he-goats, getting blood out of a lamp-post, skinning flints, hunting the gowk, etc., etc. To be in a pet with such noodles is not very unaptly compared to a "tempest in a tea-pot," or to a little puddle trying to lash itself into a fury, and to imitate the swelling billows of the mighty deep.

It is not very easy to persuade ourselves that our facetious friend is in earnest, even though the big blusterous words in which he gives vent to his indignant feelings are not such as are usually employed by writers who are in the merry mood. Yet it is more reasonable to believe that he is making game of us for his own diversion, than that he has any serious intention of making us unhappy by the manifestations of his displeasure.

As we profess some acquaintance with the healing art, and are not altogether unskilled in the functions of ministering "to a mind diseased," we can tell the patient where he will find a recipe for his malady far more efficient than any to be found in Kant, Fichte, Hegel, Cousin, Brown, Dugald Stewart, George Combe, Spurzheim, or Gall. This is contained in an epistle written by the holy Apostle Paul to the Church at Colosse, in the third chapter, and at the 12th verse, as divines say, where the servant

of the Lord Jesus Christ wrote for our learning and comfort, as well as that of the Church in his days, "Put on therefore, as the ELECT of God, holy and beloved, bowels of mercies, kindness, humbleness of mind, meekness, long-suffering; forbearing one another, and forgiving one another, if any man have a quarrel against any: even as Christ forgave you, so also do ye. And above all these things put on charity. . . . And let the peace of God rule in your hearts, to the which also ye are called in one body; and be ye thankful."

Charity is like a cloak, for it not only warms the heart of him who is clothed therewith, but it hides or makes an excuse or allowance for the shortcomings of others. He who has Christian patience and forbearance, and the peace of God above all, will not be sorely vexed either by the petulance or the neglect of reviewers,—naughty men!—who are unable to see and unwilling to award a due recompense to merit, as distinguished as it is disinterested.

We bid him adieu, for the present, rather in sorrow than in anger, because our sincere desire is that every human creature may rejoice at this season, when all Christians celebrate the great festival of humanity. We dare not mar intentionally the joy wherewith every heart should be full; nor may we with a good conscience interrupt that peace proclaimed from heaven by angels and confirmed by Him who was the Lord of angels, and the Prince of Peace, by harping on our own petty wrongs, and clamorously insisting on an immediate redress of our grievances. We are well aware that the great and awful day, when time shall be no more, is surely and rapidly approaching, and this season specially reminds us of future events which are as certain as the past; and as we all profess to be followers of Him who was meek and lowly, it should not be taken amiss if one who has seen many returns of this anniversary, should put his readers in mind of the example of Him who said, "Blessed are the peacemakers, for they shall be called the children of God."

Non magnis componere parvum, another volume of our publication is closed, and we are about to close another weightier volume in the great book of the history of time. The past year, ungenial as it was, did not bequeath at its close a legacy of famine and scarcity, as a punishment for our sins. For this we are thankful. The sinister predictions of July were happily

unfulfilled, through the goodness of an overruling Providence. The harvest, though late, was completed before the beginning of that harvest in the Cheviots, recorded by the late genial historian of the 'Botany of the Eastern Borders,' who tells us that the *earliest hairst* that ever was seen, was seen at Benty Dod. This inauspicious harvest did not begin till the first day of the new year, viz. on January 1st (year unknown).

During the past anomalous season, fears were frequently expressed that there would be no harvest at all worth gathering in. Happily these gloomy forebodings have not been realized; our barns may not be, like our shops, "filled with all manner of stores," but there is as yet no scarcity of the staff of life, and there is no valid cause for "complaint in our streets." The necessitous poor will be provided for by the generosity of the charitable, or from the public purse; and all should remember that we are dependent on the Almighty, on Him "who feedeth the young ravens when they cry."

Chelsea, January 1, 1861.

Supplemental Notes on Orthotrichum anomalum.

By J. B. Wood, M.D., F.R.C.S., etc.

Since my previous observations on *O. anomalum* were sent to the press, I have received from Dr. W. P. Schimper his more mature opinions with regard to the Moss gathered at Aberdour, referred by me to *O. anomalum*, Bry. Eur., but which he at first considered to possess claims sufficient to entitle it to rank as a distinct species. He has, however, subsequently satisfied himself of the correctness of the original name under which it was sent, and now considers it as a modified form only of the true *O. anomalum*, Bry. Eur., differing only from it in the firmer capsule and peristome, which are much more highly coloured than in its normal state. Under these circumstances, I consider it my duty to offer to Dr. Schimper the best and most ample apology in my power, for having thus hastily given to the readers of the 'Phytologist' his first and immature impressions respecting it, derived from a merely cursory examination of the specimens sent to him for reference, instead of waiting, as would have been much better, until he had more thoroughly completed those arduous and extensive researches on which he was still occupied, and

while so many new species, originating out of this inquiry, were crowding upon him and necessarily operating in a great measure to prevent him devoting so great an amount of time and attention to the especial study of this plant, as under other and more favourable circumstances he doubtless would have bestowed upon it. I hope this explanation will be satisfactory alike to my friend Dr. Schimper and to your readers. That erroneous impressions are frequently the result of all primary investigations on most subjects in connection with Natural History, few I think will deny, more especially where, as in the present instance, the case is surrounded with difficulties of no ordinary character, and which require for their unravelment an amount of patience, experience, and ability which is not found to be possessed by many. Even my friend Wilson, on first seeing the Aberdour Moss, was much more disposed to refer it to *O. strangulatum* than to the species to which it really belongs; a circumstance not at all to be wondered at, seeing that at that time we knew but little of the real merits and characters of the species, and had no practical acquaintance with them. I now proceed to quote some of the subsequent observations made by my friend Schimper in his last letter. He says: "I certainly consider your *O. anomalum*, Hook. and Tayl., as perfectly distinct from that so named in Bry. Eur., which is unquestionably the one described by Hedwig in his 'Musci Frondosi,' where the capsule is represented at plate 37, t. 2, with *sixteen striæ*, and concerning which it is said in the text, 'Harum (striarum) aliæ *omnem longitudinem* metient, aliæ ab orâ ortæ *circa medium* evanescunt.'" He then proceeds: "What name must be given to your English Moss? (the *O. anomalum* of H. and T.). I would suggest that of *O. neglectum!* As to your plant from Aberdour, I cannot now satisfactorily distinguish or separate it from that of the *true O. anomalum*, Bry. Eur. and of Hedwig, and you will find in the parcel that I have had the pleasure of sending to you, numerous specimens which I gathered during the last summer in the vicinity of Baden Baden and near Strasbourg, which perfectly accord in every respect with your own."

As regards the name to be given to our indigenous species, I confess that I hardly think the one suggested by Dr. Schimper a suitable or appropriate one; but on discussing this question with my friend Wilson, when on a visit here last week, he very kindly offered to make still further inquiries into the previous history of

the species, and I have just received from him the result of his investigations, conducted with his usual care and accuracy, and the most strict and rigorous adhesion to facts; and which, to my mind, are perfectly satisfactory and conclusive, and will, I hope, be so considered by all who really take an interest in the question. In his letter, he says: "Under the article of *O. saxatile* (Dill. Bridel), in Bridel's Bryol. Universa, vol. i. p. 275 (= *O. anomalum*, H. and T.), described with 'peristomium simplex, dentibus sedecim *per paria* coadunatis, distinctis tamen, linea media longitudinali exaratis, siccitate suberectis, *nunquam reflexis*.' Bridel cites *Grimmia striata*, var. *rupestris*, vel *saxatilis* of Hedwig's Fund. Muscor. vol. ii. p. 89, t. 7, fig. 35, 'ubi peristomium bene sistitur, *contra* in *Musc. Frond.* t. 37, peristomio potius ad *O. cupulatum* pertinente, unde probabilis Hookeri opinio, Hedwigium has duas species utut distinctissimas commiscuisse, *Hook. et Tayl. Musc. Brit.*'"

The work cited is Hedwig's 'Fundamenta Historiæ Naturalis Muscorum,' Lipsiæ, 1781, 2 vols. 4to, six years before the publication of his 'Musci Frondosi,' where, *as I suppose*, he has cited his *Grimmia striata*, var. *rupestris* (*O. saxatile*) as a synonym. I did not previously advert to this fact of the Moss of Hook. and Tayl. having been so given, and I am NOW sensible that Hedwig's representation of the Moss first published under that particular name of *O. anomalum, must bear that name* (*O. anomalum*), even if it be proved and admitted that the Moss published in 'Fundamenta Historiæ' be quite a different species, while Hedwig considered it identical with that of 'Musci Frondosi,' 2, t. 37; and if so, then, notwithstanding Bridel's calling Hedwig's Musc. Frond. Moss *O. saxatile* (Dillen.), that name (and not the one suggested by Dr. Schimper, *O. neglectum*) should be borne by the Moss of Hook. and Tayl. There are *now* obvious reasons for this change, although H. and T. saw "no reason for altering the name (*O. anomalum*), as Bridel has done, to that of *O. saxatile*." I think this should be stated quickly to our good friend Schimper.

There can be *no doubt* that *O. saxatile*, Brid. Bry. Universa, 1. 27. 5, is *O. anomalum* of H. and T., and is, moreover, well described in that work; so that even if Hedwig had not given it the name of var. *saxatilis* of *Grimmia striata*, Bridel's name ought most assuredly to be retained. That of *O. neglectum* is scarcely apposite, for truly neither Bridel nor British bryologists ever NEGLECTED this Moss.'

At the commencement of this inquiry, I certainly never entertained the least idea that results so important, so interesting and unexpected, would have accrued from what was simply intended as a means for acquiring further information as to our indigenous species, as compared with that of Bry. Eur. I cannot avoid the confession that I feel deeply gratified that means so small should have been productive in eliciting such an amount of highly interesting information to bryologists in all countries. It would now appear from the researches of Dr. Schimper, that we have in Europe, belonging to the section of *O. anomalum*, the following species, viz.:—*O. anomalum*, Hedw. and Bry. Eur., *O. saxatile*, Dill. Bridel (our indigenous *O. anomalum*, H. and T.), *O. Blyttii*, *O. Sœmmerfeltii*, and *O. sclerodon*; all found in Norway. In addition to these, I may mention also as belonging to the same group, and recently detected, *O. Breutelii*, and *O. arcticum*, in Greenland; *O. Barthii*, in Labrador; and *O. Pylaiseii*, in Newfoundland. Surely there is sufficient stimulus and encouragement here to excite all to further and renewed research. The field for investigation and continued inquiry is yet ample, and will doubtless still afford to all who perseveringly investigate its treasures for themselves, rewards far exceeding their most sanguine expectations. I hope the knowledge of such facts and results as have already been made manifest may stimulate anew all the bryologists of this and other countries, and I shall feel most especially obliged by any communications from the numerous readers of the 'Phytologist' bearing upon this subject. I may mention here, as one result of this inquiry, the discovery for the first time in this country of the interesting *O. Sturmii*, Hoppe, gathered by my much esteemed friend Mr. D. Moore, of Glasnevin, on mossy rocks, at Luggielaw, in the county of Wicklow, which had lain hid and undetected in his herbarium since 1857, and sent to me with numerous others, supposed varieties of *O. anomalum*, but from which it is easily recognized. I have also lately received from Scotland genuine examples of *O. anomalum*, Br. Eur., besides those from Aberdour, and I would especially request the attention of our Scottish friends to this species, hoping that they may be able to communicate through the pages of the 'Phytologist' further information relating to its distribution and occurrence in that part of the kingdom.

HYDROCHARIS MORSUS-RANÆ.

Having obtained plants of the Frogbit (*Hydrocharis Morsus-ranæ*) from ditches near Christchurch, in Hampshire, and grown them in a pan of water for three or four years, an opportunity has offered of observing the manner in which this aquatic lives unharmed by the winter frosts, and disperses itself through the waters in which it grows. The peculiarities noticed do not seem to have been mentioned in any of the leading botanical works, and are perhaps of sufficient interest to warrant their admission into the pages of the 'Phytologist' for general information.

Hydrocharis Morsus-ranæ is described in all the Floras as being *perennial;* but it decays entirely away every autumn in October or November, and disappears altogether from the surface of the water which it has hitherto nearly covered with its leaves. In what sense, then, is it *perennial?*—and how is its permanent existence secured otherwise than by seed? It is observed to be in the following manner:—The Frogbit sends off in different directions floating runners, ending in plants, which again send off others, and in this way it occupies and covers the surface of the waters in which it is found. But whence does the original plant proceed which produces all these proliferous runners, for during the winter months there is not a trace of one left? It is seen to take its rise from a little bud or *bulb;* for besides the runners bearing plants putting forth leaves and flowers, each plant, towards the end of summer, sends off one or more runners which end in a scaly bud, and at the time of the decay of all the rest of the plant in the autumn months, these scaly buds retain their vigour and vitality, become detached from the perishing runners, and sink to the bottom of the water, where they pass the winter upon the mud. Early in May the little scaly buds, which have lain tranquilly below during the previous months, yielding to the influences of the season, and to the mysterious periodicity of their nature, rise once more to the surface, expand, put forth their leaves and proceed to run their summer course of existence as before.

The history of the Frogbit would appear then to present these points, which are remarkable. First, it offers an instance of a water-plant, the perennial existence of which is secured by means of scaly buds, produced at the end of runners, and separating from the parent plant,—in other words, by means of

subaqueous bulbs. For what is a bulb? To quote Balfour's 'Class-book of Botany,' page 67, "It is a bud produced underground, the centre corresponding to the axis, which is clothed with scales, and which sends flowering stems upwards and roots downwards." Bulbs, like other buds, are formed upon or at the end of stems. In general, these stems are reduced to a mere disk, but there are very many cases in which bulbs are formed at the end of long runners, an example of which is to be found in the wild tulip (*Tulipa sylvestris*), the bulbs of which are described in the 'English Flora' of Sir J. E. Smith, as observed by Mr. Ker, to be "formed at the extremity of lateral shoots of a considerable length." Sir W. J. Hooker also, in his 'British Flora,' notices "that the wild Tulip increases by throwing out a long stout fibre from its root, at the extremity of which a bulb appears." *Anisanthus (Gladiolus) Cunonia*, and several species of *Oxalis* from the Cape, may also be cited as instances in point.

Here, then, in the Frogbit, we have a true *bulb*, by means of which it increases and continues permanently to live, but it is *subaqueous*,—a form of bulb not hitherto, it might seem, clearly recognized. Secondly, the dispersal of the Frogbit is ensured by means of the bulbs produced at the end of runners of some length, and then detached in the autumn from the parent stem, and moving freely with the gentle movements of the water in which they lie, a fact worth noting. Thirdly, it is seldom that the eye witnesses so distinctly as in the case of the Frogbit the marvellous arrest of the decay affecting the whole of the rest of the plant at the precise point at which it reaches the bulbs at the extremity of the stems. There the vital force might be supposed to become enfeebled and to fail, but, on the contrary, it is there found to be stored up in all its wondrous energy, and there it resists successfully the destruction which dissolves all else except the little bulbous reservoirs in which it lies contained. Although this wonder is repeated continually in other plants, very strikingly in such as are of only annual duration, the seeds of which alone survive the general decay, yet it is most plainly to be *seen* in this analogous preservation of the Frogbit's bulbs. In the last place, the return of the bulb of the Frogbit to the surface of the water at the appointed time, in exact obedience to the law of its nature, brings strongly into notice another of the surprising facts which are scarcely adequately to be explained in the present state of human knowledge.

BOTANICAL NOTES, NOTICES, AND QUERIES.

Notice to Contributors.

The Editor regrets that there have been long in his possession several communications which he could not publish for want of room. He particularly refers to articles from Mr. Sim, Mr. A. G. More, Mr. Lloyd, Mr. Beisly, Mr. Jerdon; also from three other correspondents whose names he is not at liberty to publish. There are also waiting for insertion several extracts from the letters of correspondents whose missives, he acknowledges, bear a not very recent date. He entreats all these kind friends to have patience with him, and he will try and do his best to please them all.

Arenaria balearica.

(*Extract from a Letter.*)

All I know about *Arenaria balearica* may be simply stated in a few words. A young lad, gardener at Moncrieffe House, brought, about the beginning of June, 1859, a portion of a little plant which he said grew on the north wall of their fruit-house, about two feet from the ground: there was only one patch of it, about a foot in diameter. I sent a bit of it to you, as I could not find any of our descriptions of the British *Arenariæ* to agree with it. I thought it came nearest *A. ciliata*. At last I looked in my Botanical dictionary, and found therein described, shortly and insufficiently, a plant under the name of *A. balearica*, which I thought might be the plant in question. I sent a bit of it to Mr. C. C. Babington, Cambridge, who at once replied, confirming my opinion. On the 16th or 17th of June last year, I went myself to Moncrieffe, and on the tool or fruit house saw the *A. balearica* and collected some of it myself. I never intended to say whether this plant be indigenous to Scotland or not, I only recorded a fact, waiving all conjectures relative to the how or the when of its appearance there. There it was, and probably there it will continue to grow as long as the tool-house whereon it has settled itself stands. Nature pleases herself in the selection of suitable localities for her offspring. Botanical geographers would fain confine her within bounds, but their laws, not hers, are like the spiders' webs which catch the weaker denizens of the insect world and let the stronger break through.

Some plants will submit to the laws made and provided for the restraint of their wandering propensities, but not all. The plant in question, *Arenaria balearica*, may be one of these, one of the vagrants of Flora's dominion; unhappily she is not the only one that discomforts phytogeographers.

John Sim.

Communications have been received from

Dr. Windsor; J. B. Wood, M.D., F.R.C.S.; Joseph Croucher; Edwin Green; R. Heward; James Hussey; Harriet Beisly; J. G. Baker; John Sim; W. Wilson; T. W. Gissing; W. P. W. Richardson.

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A CATALOGUE

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Acosta, J. Historia Natural y Moral de las Indias, in que se tratan, etc. 4to. *Good clean copy.* 31*s.* Madrid, 1608

Acosta, C. Tractado de las Drogas, y Medicinas de las Indias Orientales, etc. *Curious Cuts.* 4to. 8*s.* Burgos, 1578

Aucher-Eloy, M. Relations de Voyages en Orient, de 1830–1838, par Aucher-Eloy, revues et annotées par M. le Comte Jaubert, etc. *Complete in two volumes, Map, etc.* 15*s.* Paris, 1843, etc.

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Bunge, A. Verzeichniss von Altai-Gebirges Pflanzen, ein Supp. zur Flora Altaica, etc. 4to. 7*s.* 1836

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Buxbaum, J. C. Another copy, *not quite perfect.* 10*s.* Petrop. 1728, etc.

Calcutta Journal of Natural History, and Miscellany of Arts and Sciences in India, by MacClelland, Griffith, Gardner, and others; *several separate volumes, each complete in itself, with numerous plates,* at 10*s.* each volume. Calcutta, 1842–1846

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Commelin, C. Preludia Botanica, etc., Plantarum rariorum Icones et Descriptiones. 4to. *Plates.* 2*s.* 6*d.* Lugd.-Bat. 1703

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Hamilton. Most of the parts can be supplied separate.

Hermann. Museum Zeylanicum, sive Catalogus Plantarum in Zeylana sponte nascentium, etc. 1717

Hill, John. Horti Malabarici pars prima. *All that ever was published.* 4to. 6*s.* 6*d.* London, 1774

Hooker, J. D., and Thomson, Th. Introductory Essay to the 'Flora Indica.' With two maps. Reprinted from the 'Flora Indica.' Cloth. 10*s.* 6*d.* London, 1855

Jack, Dr. On the Malayan Species of Melastoma. *Plate.* 1*s.* 6*d.*

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*** Copies of Dr. Wallich's lithographed Catalogue rarely occur for sale; the present is a well-bound and perfect copy, with an Index and some Additions.